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|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | AAQMS System | | | | | | | | | | |
| | | I | | | | ACOEM Ecotech Industries Pvt Ltd | Pithampur | A | | | 1. So2 ,Nox,CO,CO2 ,Ozone ,PM-10,PM-2.5 & multipoint calibrator will be from Ecotech Australia<br>2.Metrological sensor from Dynalab<br>3. Mercury analyser from LOA agreed sources<br>4.Pl refer Note-07 |
| | | I | | | | Horiba India Pvt ltd | Pune | A | | | 1. So2 ,Nox,CO,CO2 ,Ozone & multipoint calibrator will be from Horiba Japan<br>2.PM-10,PM-2.5 ,TSP will be from Met One USA & metrological sensor from Spectrum USA<br>3. Mercury analyser from LOA agreed sources |
| | | I | | | | Envirorment SA India Pvt. Ltd. | Mumbai | A | | | 1.Analysers SO2,Nox,CO2 & SPM from Environment SA France,<br>2-Multipoint Calibrator From envoirenment SA France<br>3-Metrological Sensor with interface unit from M/s LSI Lastem SRL, Italy |
| | | I | | | | Thermo Fisher Scientific India Pvt. Ltd | Mumbai | A | | | 1) Analysers (Sox,Nox,CO,SPM,RSPM ,Ozone ) ,multi gas calibrator shall be sourced from their principle Thermo Environmental ,USA (Division of M/S Thermo fisher Scientific ,USA)<br><br>2 )Metrological sensors shall be sourced from M/S Metone Instruments USA |
| | | I | | | | Chemtrol Engineering Ltd | Goa | A | | | 1. Analysers from M/S Teledyne USA except Mercury analyser .<br>2.Metrological sensors & SPM analysers from Met one Instruments Inc USA<br>3.Pl refer note-07 |
| 2 | Acoustic pyrometer System | | | | | | | | | | |
| | | I | | | | Lucent Marcons Pvt Ltd<br>(As a system Integrator of M/S Scientific Environmental Instruments, Inc. ( SEI) USA ) | Noida | A | | | 1.Boiler watch processor control unit, acoustic sensor ( Pizeo/Microphone with prefab cable ) , Preamplifier , mapping software & analog output cards shall be from M/S SEI USA .<br>2. Enclousure ,OWS ,Waveguide ,Transition cone with flange , venturi , Tube box etc shall be from M/S SEI USA approved sources to be tiedup in MQP.<br>3. Pl refer Note-07 |

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| | | I | | | | Hi-Tech Systems & Services Ltd (As a system Integrator of M/S Bonnenberg + Drescher GmbH, Germany) | Kolkata | A | | | 1.All critical components are to be procured from M/S Bonnenberg + Drescher GmbH, Germany<br><br>2.Standard indiginious components like Solenoid valve (Asco make) ,matching flange ,printer & monitor table shall be supplied by M/S Hi- Tech |
| | | II | | | | Scientific Environment Instrument Inc (SEI) | USA | A | | | 1.PCU ,Acoustic sensor ,Preamplifier mapping software shall be from SEI USA .<br>2. Enclousure ,OWS ,Waveguide ,Tube box etc shall be from SEI approved sources to be tiedup in MQP.<br>3.Pl refer Note-07 |
| | | II | | | | Bonnenberg + Drescher GmbH, | Germany | A | | | |
| | | II | | | | STOCK Equipment Co | USA | A | | | |
| 3 | Addressable Detector (Multisensor , Photo & Heat Detectors Type), Interface units & Manual call points | | | | | | | | | | |
| | | II | | | | Honeywell Life Safety-HIIPL | Gurugram | A | | | Notifier Brand ( Detector, Interface Module only) |
| | | II | | | | Schrack | Austria | A | | | |
| | | II | | | | Autronica | Norway | A | | | |
| | | II | | | | Edwards | Mexico | A | | | |
| | | II | | | | Notifier | USA | A | | | |
| | | II | | | | Sheld Fire safety | UK | A | | | |
| | | II | | | | Jhonson Controls | USA | A | | | Simplex Brand |
| 4 | Battery for 24VDC charger & UPS | | | | | | | | | | |
| | | Note-4 | | | | Hoppecke Batterien GmbH & Co Kg | Germany | A | | | For Lead Acid- Plante |
| | | Note-4 | | | | Exide | Kolkata | A | | | For Lead Acid- Plante |
| | | Note-4 | | | | SAFT India Ltd | Bengaluru | A | | | For Ni-Cd |
| | | Note-4 | | | | HBL Power | Hyderabad | A | | | For Ni-Cd ,Upto 990AH (H type) |
| | | Note-4 | | | | SAFT | France/Sweeden | A | | | For Ni-Cd |
| | | Note-4 | | | | Hoppecke Batterien GmbH & Co Kg | Germany | A | | | For Ni-Cd |
| 5 | Blank Panels / Cabinets | | | | | | | | | | |
| | | III | | | | Pyrotech Electronics Pvt. Ltd | Udaipur | A | | | |
| | | III | | | | Rittal India Private Ltd | Bengaluru | A | | | |
| | | III | | | | Hoffman | Bengaluru | A | | | |
| | | III | | | | BHEL | Bengaluru | A | | | |
| | | III | | | | BCH ELECTRIC LIMITED | Faridabad | A | | | |
| 6 | Boiler tube leak detection system (ASLD) | | | | | | | | | | |
| | | III | | | | HI Tech System & services Ltd ( System Integrator of Acoustic Monitoring International Inc. USA) | Kolkata | A | | | 1.M/S Acoustic Monitoring International Inc. USA Make system<br>Conditional as per approval letter 01/CQA/9573-102/Hi-tech-AMI dated 11.04.2013<br>2.Pl refer Note-07 |

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| | | III | | | | Raman Instruments (System Integrator of M/S Procon UK ) | Delhi | A | | | 1.M/S Procon UK Make system<br>2.Pl refer Note-07 |
| | | III | | | | BHEL Ltd | Trichurapalli | A | | | |
| | | III | | | | Instrotech (PTY) Ltd | South Africa | A | | | |
| | | III | | | | Rectuson Co. Ltd | S.Korea | A | | | |
| | | III | | | | Procon Engineering | UK | A | | | |
| | | III | | | | Acoustic Monitoring International Inc. (AMI) | USA | A | | | |
| 7 | CCTV System (IP Based ) | | | | | | | | | | |
| | | III | | | | Axis | Sweden | A | | | 1-CCTV components will be of Axis communication AB,Sweden make & Video Management Software will be of Milestone Brand.<br>2.Other BOI items shall be from LOA approved sources & will be tied up during the finaliztion MQP. |
| | | III | | | | Bosch | Bengaluru | A | | | 1.CCTV components will be of M/S Bosch make, and supplied through M/s Bosch, Bengaluru.<br>2.Other BOI items shall be from LOA approved sources & will be tied up during the finaliztion MQP. |
| | | III | | | | Pelco | USA | A | | | 1.CCTV components will be of M/S Pelco, USA make<br>2.Other BOI items shall be from LOA approved sources & will be tied up during the finaliztion MQP. |
| | | III | | | | M/s Samriddhi Automations Pvt. Ltd (sparsh make) | Haridwar | A | | | 1.CCTV components will be of M/S Samriddhi, Haridwar make.<br>2.Other BOI items shall be from LOA approved sources & will be tied up during the finaliztion MQP. |
| 7A | CCTV System (IP Based ) /System Integrators | | | | | | | | | | |
| | | I | | | | Jonson Control India Pvt Ltd | Mumbai | A | | | M/S Pelco Make CCTV system |
| | | I | | | | Toshniwal Industrial Pvt Ltd | Ajmer | A | | | M/S Axis Make CCTV system |
| | | I | | | | L&T TECHNOLOGY SERVICES | Faridabad | A | | | M/S Samriddhi(sparsh) Make CCTV system |
| | | I | | | | Score Information Technologies Limited | Kolkata | A | | | M/S Bosch Make CCTV system |
| 8 | Control Desk | | | | | | | | | | |
| | | I | | | | Pyrotech Workspace Solutions Pvt Ltd | Udaipur | A | | | BOI items like Mosaic tiles /Console items shall be as per LOA approved sources |

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| | | I | | | | Cosmos Media Products Pvt Ltd | Greater Noida | A | | | 1.BOI items like Mosaic tiles /Console items shall be as per LOA approved sources<br>2. H block should be from knurr Germany .Solid acrylic surface should be procured from Du Pont/NTPC approved sources<br>3.Extruded Al profile structure should be procured from Hindalco (With Knurr design) |
| | | I | | | | Adarsha Control system Pvt Ltd | Bengaluru | A | | | 1.BOI items like Mosaic tiles /Console items shall be as per LOA approved sources<br>2. Acrylic solid surface (ASS) should be procured from Du Pont /NTPC approved sources<br>3.wood works are to be done by M/S C K Furn Bangaluru |
| 9 | Control Valves | | | | | | | | | | |
| 9-A | Control Valves for Aux PRDS system including desuperheater | | | | | | | | | | |
| | | I | | | | Instrumentation Limited | Palakkad (Kerala) | A | | | Up to A182F92 material with conditions as per approval letter |
| | | I | | | | Koso India Pvt limited | Nasik | A | | | Up to A182F92 material with conditions as per approval letter |
| | | I | | | | Bomafa Special Valve solutions Pvt ltd | Ahmedabad | A | | | Up to A182F92 material with conditions as per approval letter |
| | | I | | | | KSB MIL Controls Ltd | Thrissur (Kerala) | A | | | As per approval Ref: 02/CQA/SG/Tanda/MIL Dated 30.09.2015 |
| | | I | | | | Control Component India PVT Ltd | Sricity (Andhra Pradesh) | A | | | 1.MQP shall be vetted by M/S CCI -USA<br>2.Sources of major components like casting /forging and actuators shall be tied up during finalization of MQP |
| | | II | | | | Parcol SPA | Italy | A | | | |
| | | II | | | | Daume | Germany | A | | | |
| | | II | | | | HOLTER | Germany | A | | | |
| 9-B | Control Valve for Start Up System | | | | | | | | | | |
| | | I | | | | Control Component India PVT Ltd | Sricity (Andhra Pradesh) | A | | | 1.The critical components of control valve i.e. Disk Stack ( Drag technology) shall be sourced from CCI, USA/CCI S. Korea .<br>2.The positioner from NTPC approved sources & pneumatic actuators are sourced from CCI S.Korea<br>3.Control valve to be manufactured as per CCI USA design & drawing. |
| | | I | | | | KOSO India Pvt Ltd | Nasik | A | | | |
| | | I | | | | Emerson Process Management Ltd | Chennai | A | | | |
| | | II | | | | Dresser Produits industriels Industriels S.A.S | France | A | | | |
| | | II | | | | SEMPELL AG | Germany | A | | | Up To size 20 Inches & 2500 ANSI Class |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | II | | | | Nihon Koso Co Ltd | Japan | A | | | |
| | | II | | | | HORA | Germany | A | | | |
| | | II | | | | CCI | S.Korea | A | | | |
| | | II | | | | Emerson (Fisher) | USA/France/Japan | A | | | |
| 9-C | Control Valve for BFP Recirculation. | | | | | | | | | | |
| | | I | | | | Control Component India PVT Ltd | Sricity (Andhra Pradesh) | A | | | 1.The critical components of control valve i.e. Disk Stack ( Drag technology) shall be sourced from CCI, USA/CCI S. Korea .<br>2.The positioner from NTPC approved sources & pneumatic actuators are sourced from CCI S.Korea<br>3.Control valve to be manufactured as per CCI USA design & drawing. |
| | | I | | | | KOSO India Pvt Ltd | Nasik | A | | | |
| | | I | | | | KSB MIL Controls Ltd | Thrissur (Kerala) | A | | | Up to 10 Inches & 3400 ANSI class |
| | | II | | | | Dresser Produits industriels Industriels S.A.S | France | A | | | |
| | | II | | | | Nihon Koso Co Ltd | Japan | A | | | |
| | | II | | | | CCI | USA | A | | | |
| | | II | | | | Emerson (Fisher) | USA/France/Japan | A | | | |
| 9-D | Control valve for feedwater flow Control | | | | | | | | | | |
| | | I | | | | Control Component India PVT Ltd | Sricity (Andhra Pradesh) | A | | | 1.The critical components of control valve i.e. Disk Stack ( Drag technology) shall be sourced from CCI, USA/CCI S. Korea .<br>2.The positioner from NTPC approved sources & pneumatic actuators are sourced from CCI S.Korea<br>3.Control valve to be manufactured as per CCI USA design & drawing. |
| | | I | | | | KOSO India Pvt Ltd | Nasik | A | | | |
| | | I | | | | Emerson Process Management Ltd | Chennai | A | | | Control valve body assembly will be from Nippon Fisher ,Japan with IBR form III C certificates . |
| | | I | | | | KSB MIL Controls Ltd | Thrissur (Kerala) | A | | | 1.Provision of straight type of brackets for linkage mechanism .2.Factory fitted strainer /diffuser type seat ring . 3.AFR with T connector for pneumatic connection to volume booster |
| | | II | | | | Dresser Produits industriels Industriels S.A.S | France | A | | | |
| | | II | | | | Nihon Koso Co Ltd | Japan | A | | | CONDITIONAL |
| | | II | | | | CCI | USA / Austria / S.Korea / Switzerland | A | | | |
| | | II | | | | Emerson (Fisher) | USA/France/Japan | A | | | |
| 9-E | Control valves for Soot blower pressure reducing ,SH/ RH Attemperation. | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | I | | | | Control Component India PVT Ltd | Sricity (Andhra Pradesh) | A | | | 1.The critical components of control valve i.e. Disk Stack ( Drag technology) shall be sourced from CCI, USA/CCI S. Korea .<br>2.The positioner from NTPC approved sources & pneumatic actuators are sourced from CCI S.Korea<br>3.Control valve to be manufactured as per CCI USA design & drawing. |
| | | I | | | | KOSO India Pvt Ltd | Nasik | A | | | |
| | | I | | | | Emerson Process Management Ltd | Chennai | A | | | |
| | | I | | | | KSB MIL Controls Ltd | Thrissur (Kerala) | A | | | |
| | | I | | | | GE Oil & Gas India Pvt Limited | Coimbatore | A | | | up to 2500 ANSI Class |
| | | I | | | | Flow Serve India Controls Pvt Ltd | Bengaluru | A | | | |
| | | I | | | | Instrumentation Limited | Palakkad (Kerala) | A | | | only for SH / RH |
| | | II | | | | Nihon Koso Co Ltd | Japan | A | | | |
| | | II | | | | Dressor Masoneilan | USA | A | | | only for SH / RH/ up to 2500 class |
| | | II | | | | Dresser Produits industriels Industriels S.A.S | France | A | | | |
| | | II | | | | SPX Flow Technology | USA | A | | | only for SH / RH |
| | | II | | | | Leslie Controls Inc | USA | A | | | only for SH / RH |
| | | II | | | | Sempell AG (Tyco group) | Germany | A | | | only for SH / RH |
| | | II | | | | CCI | USA/Sweden /S.Korea | A | | | |
| | | II | | | | Emerson (Fisher) | USA/France /Japan | A | | | |
| 9-F | Control valve(Other application) | | | | | | | | | | |
| | | I | | | | Mascot Valves Pvt Ltd | Ahmedabad | A | | | Up to size 12 inches & 900 ANSI class |
| | | I | | | | Control Component India PVT Ltd | Sricity (Andhra Pradesh) | A | | | Up to 2500 ANSI class |
| | | ~~I~~ | | | | KOSO India Pvt Ltd | Nasik | ~~A~~ | | | |
| | | I | | | | KSB MIL Controls Ltd | Thrissur (Kerala) | A | | | Up to 2500 ANSI class |
| | | I | | | | Emerson Process Management Ltd | Chennai | A | | | Up to 2500 ANSI class |
| | | I | | | | GE Oil & Gas India Pvt Ltd | Coimbatore | A | | | Up to size 10 inches & 900 ANSI class /Up to size 24 inches & 600 ANSI class |
| | | I | | | | Flow Serve India Controls Pvt Ltd | Bengaluru | A | | | Up to size 14 inches & 600 ANSI class |
| | | I | | | | Forbes Marshal Arca Pvt. Ltd. | Pune | A | | | Up to size 16 inches & 900 ANSI class |
| | | I | | | | Instrumentation Limited | Palakkad (Kerala) | A | | | Up to 2500 ANSI class |
| | | I | | | | Severn Glocon India Pvt Ltd | Chennai | A | | | Up to size 14 inches & 300 ANSI class |
| | | I | | | | M/s Unicorn Valves Pvt. Ltd. | Coimbatore | A | | | Up to size 18 inches & 300 ANSI class |
| | | II | | | | CCI | USA/Sweden /S.Korea | A | | | |
| | | II | | | | Nihon Koso Co Ltd | Japan | A | | | |
| | | II | | | | Emerson (Fisher) | USA/France /Japan | A | | | |
| | | II | | | | Leslie Controls Inc | USA | A | | | |
| | | II | | | | PARCOL S.P.A | Italy | A | | | |
| | | II | | | | Dresser Produits industriels Industriels S.A.S | France | A | | | |
| | | II | | | | HORA | Germany | A | | | |

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| | | II | | | | Wellend & Tuxhorn | Germany | A | | | |
| | | II | | | | SPX Flow Technology | USA | A | | | |
| | | II | | | | Sempell AG (Tyco group) | Germany | A | | | |
| 9-G | Control Valve (Ceramic lined ) | | | | | | | | | | |
| | | I | | | | Samson Controls Pvt Ltd | Pune | A | | | 1. For M/S Samson Cera Germany make valve Up to 10 inches size & 150 ANSI class<br>2. BOI shall be tied up at the time of finalisation of MQP |
| 10 | DDCMIS | | | | | | | | | | |
| | | I | | | | ABB | Germany | A | | | |
| | | I | | | | SIEMENS AG | Germany | A | | | |
| | | I | | | | Emerson Process Management Asia Pacific Pvt Ltd | Singapore | A | | | |
| | | I | | | | Hitachi nest control system Pvt Ltd | Bengaluru | A | | | |
| | | I | | | | Honeywell Automation India Ltd | Pune | A | | | |
| | | I | | | | GE | France | A | | | |
| | | I | | | | SIEMENS | Gurugram | A | | | |
| | | I | | | | BHEL | Bengaluru | A | | | For MAX DNA System |
| | | I | | | | Yokogawa | Bengaluru | A | | | |
| | | I | | | | GE Power India Ltd | Noida | A | | | |
| | | I | | | | Toshiba | Japan | A | | | |
| | | I | | | | ABB | Bengaluru | A | | | |
| | | I | | | | M/s Emerson Electric Co. (India) Pvt Ltd. | Nashik | A | | | 1.All assembly, testing and supply must be done by Emerson process management India pvt. Ltd at approved Nashik work address. |
| 11 | Dust Emision Monitor | | | | | | | | | | |
| | | III | | | | Durag India Instrumentation Pvt Ltd | Bengaluru | A | | | 1. For Durag Germany Make Extractive Type Dust density analyser<br>2. Other components shall be as per approval letter CQA/NTPC BARH STPP-I / D-263 / Durag India Instrumentation Pvt Ltd Bengaluru Dated 28.08.2019 |
| | | III | | | | Sick India Pvt ltd | Mumbai | A | | | 1.For SICK AG Make Extractive Type Dust density analyser<br>2. Other components shall be as per approval letter CQA/NTPC BARH-I /S-907/M/S SICK India Pvt Ltd dated 28.08.2019 |
| | | III | | | | Environment SA India Pvt Ltd | Navi Mumbai | A | | | 1.For ENEVA UK Make Extractive Type Dust density analyser<br>2. Other components shall be as per approval letter No.: CQA/NTPC BARH-I / E-335 / M/S Environment SA India Pvt Ltd Dated 16.09.2019 |
| | | III | | | | Land Instruments International | UK | A | | | For In Situ type /Optical Transreceiver type |
| | | III | | | | Codel | UK | A | | | For In Situ type /Optical Transreceiver type |

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| | | III | | | | Durag Industrie Elektronik GmbH & Co KG | Germany | A | | | For In Situ type /Optical Transreceiver type & Extractive Type |
| | | III | | | | Emerson Process Management | Ireland | A | | | For In Situ type /Optical Transreceiver type |
| | | III | | | | SICK AG | Germany | A | | | For In Situ type /Optical Transreceiver type & Extractive Type |
| | | III | | | | ENEVA | UK | A | | | For Extractive Type Dust density analyser |
| 12 | Electrical Actuators | | | | | | | | | | |
| 12-A | Electrical Actuator (With gear box if applicable ) | | | | | | | | | | |
| | | II | | | | Antrieb Technik Pvt Ltd | Chennai | A | | | For low torque applications only |
| | | II | | | | Auma | Bengaluru | A | | | |
| | | II | | | | Limitorque | Faridabad | A | | | Model no L120,SMB,LY series, Gear Box T, HBC Series |
| | | II | | | | Rotork | Bengaluru | A | | | For low torque app (Up to 1000 Nm ) |
| | | II | | | | Rotork Controls (India) Private Ltd | Chennai | A | | | For low torque app (Up to 1000 Nm ) & High torque 4000 to 7000 Nm With integral starter for non critical applications |
| | | III | | | | Auma | Germany | A | | | |
| | | III | | | | Limitorque | USA | A | | | |
| | | III | | | | Rotork | UK | A | | | For low torque app (Up to 1000 Nm) |
| | | III | | | | Nippon gear | Japan | A | | | |
| | | III | | | | Drehmo GMBH | Germany | A | | | C Matic Series (DMC/DMCR) |
| 12-B | Electrical Actuator- Non-Intrusive (With gear box if applicable ) | | | | | | | | | | |
| | | I | | | | Auma India Pvt Ltd | Bengaluru | A | | | Also acceptable for Field Bus based applicable |
| | | I | | | | Rotork Control | Chennai | A | | | Upto 630Nm |
| | | III | | | | Flowserve | USA | A | | | Also acceptable for Field Bus based applicable |
| | | III | | | | Bernard Controls | France | A | | | |
| | | II | | | | M/s Enertork Ltd. | South Korea | A | | | |
| 12-C | Electrical actuator for ID/FD/PA Blade pitch ,IGV &SCOOP | | | | | | | | | | |
| | | III | | | | Harold Beck & Sons Inc | USA | A | | | |
| | | III | | | | SIPOS Aktrorik GmbH | Germany | A | | | |
| 13 | Electronics Transmitter (Pressure , DP and DP based Flow/Level ) | | | | | | | | | | |
| 13-A | Electronics Transmitter (Pressure , DP and DP based Flow/Level ) | | | | | | | | | | |
| | | III | | | | ABB Ltd | Bengaluru | A | | | 2600T & critical item from ABB Italy/ Their approved source; |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | |
| | | III | | | | Siemens Ltd | Thane | A | | | Model:-SITRANS P |
| | | III | | | | Honeywell Automation India Ltd | Pune | A | | | |
| | | III | | | | Baldota Control and Equipment Pvt Ltd | Navi Mumbai | A | | | PT & DPT of LD 301 Series (SMAR) |

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| | | III | | | | Yokogawa India Limited | Bengaluru | A | | | EJA-E 110,430,530 SERIES & all raw material and BOI under knocked down condotion ( sensor assembly as a single unit) shall be sourced from M/S Yokogawa Japan |
| | | III | | | | M/s Endress + Hauser India Automation Instrument Pvt Ltd | Aurangabad | A | | | |
| | | III | | | | Emerson (Rosemount) | USA | A | | | |
| | | III | | | | Yokogawa | Japan | A | | | |
| | | III | | | | ABB | Germany / Italy | A | | | 2600T & critical item from ABB Italy/ Their approved source; |
| | | III | | | | Siemens | France | A | | | Sitrans P DSIII Series |
| | | III | | | | Fuji Electric | France | A | | | FCX -AIII SERIES |
| | | III | | | | Fuji | Japan | A | | | |
| 13-B | Electronics Transmitter -Field Bus Based (Pressure , DP and DP based Flow/Level ) | | | | | | | | | | |
| | | I | | | | ABB India Ltd | Bengaluru | A | | | One no of Transmitter will be sent at DDCMIS supplier for function testing of field bus communication with DDCMIS during FAT |
| | | I | | | | Yokogawa India Limited | Bengaluru | A | | | EJA-E 110,430,530 SERIES & all raw material<br>and BOI under knocked down condotion ( sensor assembly as a single unit) shall be sourced from M/S Yokogawa Japan |
| 14 | EQMS | | | | | | | | | | |
| | | I | | | | SWAN | Hyderabad | A | | | 1. Conductivity analyser, pH analyser and Temperature Transmitter will be of M/s ABB, UK make .<br>2. TSS analyser will be of M/s Daeyoon, South Korea make .<br>3. Oil in water analyser will be of M/s TriOs, Germany make.<br>4. Online BOD/COD analyser will be of M/s Shimadzu, Japan make .<br>5. Flow meter will be of M/s Khrone Marshall, Maharashtra make.<br>6. Data Aquisition System will be procured from Knowledge Lens, Karnataka. |
| 15 | Fiber optic cable | | | | | | | | | | |
| | | Note-3 | | | | U M Cables Ltd | Silvassa (Daman) | A | | | |
| | | Note-3 | | | | KEC International Ltd | Mysore | A | | | |
| | | Note-3 | | | | Apar Industries Limited | Valsad (Gujrat) | A | | | |
| | | Note-3 | | | | HFCL | Goa | A | | | |
| | | Note-3 | | | | Aksh Fibre | Bhiwadi (Raj) | A | | | |
| | | Note-3 | | | | Finolex Cable Ltd | Goa | A | | | |
| | | Note-3 | | | | Birla Cable Limited | Rewa | A | | | |
| | | Note-3 | | | | R&M | Switzerland | A | | | |
| | | Note-3 | | | | Molex | UK | A | | | |
| | | Note-3 | | | | Corning | USA | A | | | |
| 16 | Fire alarm Panel | | | | | | | | | | |

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| | | II | | | | Toshniwal Industrial Pvt Ltd | Ajmer | A | | | 1.M/S Notifier Make Fire alarm Panel<br>2.Pl Refer Note-07 |
| | | II | | | | Bosch Security system | Bengaluru | A | | | 1.Detector , Hooter, MCP, Modules, Panel shall be M/s Bosch Make |
| | | II | | | | Notifier | USA | A | | | |
| | | II | | | | Autronica | Norway | A | | | |
| | | II | | | | Schrack | Austria | A | | | |
| | | II | | | | Edwards | Mexico | A | | | |
| | | II | | | | Shield Fire safety and security Ltd | UK | A | | | |
| | | II | | | | Jhonson Controls | Mexico | A | | | Simplex Brand |
| 17 | Flame Monitoring System (Scanner) | | | | | | | | | | |
| | | I | | | | Lucent Marcons Pvt Ltd ( System Integrator of M/S Forney Corporation USA ) | Noida | A | | | 1.Flame detector, amplifier ,light guide fiber optic , smart display programming unit , test kit & simulator will be supplied from M/S Forney Corporation USA<br>2.Other components like outer carrier ,IDD cable with connector , expander , Y connector with adapter gasket , fastners & signal isolators will be supplied from M/S Forney Corporation USA approved sources .<br>3.Pl Refer Note-7 |
| | | I | | | | HI Tech System & services Ltd ( System Integrator of BFI Germany ) | Kolkata | A | | | 1.For BFI Germany make system<br>2. Pl Refer Note-7 |
| | | II | | | | Durag India Instrumentation Pvt Ltd | Bengaluru | A | | | For Durag Germany make system |
| | | II | | | | Forney Corporation | USA | A | | | |
| | | II | | | | BFI | Germany | A | | | |
| | | II | | | | Durag GmbH | Germany | A | | | |
| | | II | | | | Emerson (COEN) | USA | A | | | |
| | | II | | | | BHEL | Trichurapalli | A | | | |
| 18 | Flow nozzle assembly | | | | | | | | | | |
| | | I | | | | Microprecision Product Pvt Ltd | Palwal | A | | | Up to Alloy steel material grade P-92 & other conditions as per approval letter |
| | | I | | | | Minco India Flow Elements Pvt. Ltd. | Goa | A | | | Up to size 26 Inches for Alloy steel/ Stainless steel pipe SA335 P-11, P -22 and SA 335 P-91 & other conditions as per approval letter |
| | | I | | | | Instrumentation Limited | Palakkad (Kerala) | A | | | Up to alloy steel grade P-92 subject to qualified WPS & other conditions as per approval letter |
| | | I | | | | Starmech controls (India) Pvt Ltd | Pune | A | | | Up to alloy steel grade P-92 subject to qualified WPS & other conditions as per approval letter |
| | | II | | | | SEIKO | Czech Republic | A | | | |
| | | II | | | | WISE Control | S.Korea | A | | | |
| | | II | | | | Technomatic | Italy | A | | | |
| 19 | Flue Gas Analyser (CO) | | | | | | | | | | |
| | | III | | | | Forbes Marshall Pvt Ltd | Pune | A | | | For In situ type CO analyser |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | III | | | | ICE (Asia) Pvt Ltd | Mumbai | A | | | For In situ type CO analyser<br>1. CO analyser from Protea UK<br>2. Other components like, Mounting Flanges, tubing, fittings ,junction boxes, air purging system , calibration cylinders & cables will be supplied by ICE (Asia) Pvt Ltd<br>3.Pl refer Note-7 |
| | | III | | | | Sick India Pvt Ltd | Mumbai | A | | | For In Situ Type / CO analyser from SICK AG & Other components like ,Protection tube ,Flanges ,tubing ,fittings ,junction boxes, solenoid<br>valves & calibration cylinders will be supplied by M/S Sick India Pvt Ltd . |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | For M/S Emerson Germany/ USA make Analyser |
| | | III | | | | Codel | UK | A | | | |
| | | III | | | | Land Instruments International | UK | A | | | |
| | | III | | | | Sick AG | Germany | A | | | For In Situ Type |
| | | III | | | | Envoirenment SA | France | A | | | For Hot Extractive |
| | | III | | | | Fuji Electric | Japan | A | | | |
| | | III | | | | Servo max Group | UK | A | | | |
| | | III | | | | Siemens | Germany | A | | | |
| 20 | Flue Gas Analyser (CO2,SO2 and Nox) | | | | | | | | | | |
| | | III | | | | Sick India Pvt Ltd | Mumbai | A | | | For In Situ Type SO2 analyser<br>1. Analyser will be from Sick AG Germany<br>2. Other components like ,Whether proof covers ,flanges ,purge air unit ,junction boxes ,cables ,PC ,remote display ,gas cylinders shall be supplied by M/s Sick India Pvt Ltd |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | For M/s Emerson Germany/ USA make Hot Extractive SO2, NOx Analyser |
| | | III | | | | Envoirenment SA | France | A | | | For Hot Extractive |
| | | III | | | | Fuji Electric | Japan | A | | | Hot Extractive Type For SO2 & Nox |
| | | III | | | | Siemens | Germany | A | | | Hot Extractive Type For SO2 & Nox |
| | | III | | | | Yokogawa Electric Corporation | Japan | A | | | IR-400 Series (Hot Extractive Type For CO2, SO2 & NOx) |
| | | III | | | | Servo max Group | UK | A | | | Hot Extractive Type For SO2 & Nox |
| | | III | | | | Sick AG | Germany | A | | | Hot Extractive Type For CO2, SO2 & NOx and In situ type for SO2 analyser |
| 21 | Flue Gas Analyser O2 Analyser (HT) | | | | | | | | | | |
| | | III | | | | SECO | Chennai | A | | | |
| | | III | | | | Marathon Monitor | USA | A | | | |
| | | III | | | | Servo max Group | UK | A | | | |
| 22 | Flue Gas Analyser {O2 Analyser (LT)} | | | | | | | | | | |

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| | | III | | | | Sick India Pvt Ltd | Mumbai | A | | | For In Situ Type<br>1. Analyser will be from Sick AG Germany<br>2. Other components like ,Whether proof covers ,flanges ,purge air unit ,junction boxes ,cables ,PC ,remote display ,gas cylinders shall be supplied by M/s Sick India Pvt Ltd |
| | | III | | | | Analyser Instruments Co Pvt Ltd | Kota | A | | | For In Situ Type<br>1.Main parts like Sample probe & Analyser will be supplied by M/s Enotec Germany.<br>2. Other components like auto calibration unit ,probe protector ,enclosure panel & calibration kit will be supplied & integrated M/s AIC kota.<br>3.Pl refer Note-07 |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | For In Situ Type<br>For M/s Emerson USA make Analyser |
| | | III | | | | ABB | Bengaluru | A | | | For In Situ Type<br>For M/s ABB UK make Analyser |
| | | III | | | | Yokogawa India | Bengaluru | A | | | For In Situ Type<br>For M/s Yokogawa Japan make Analyser |
| | | III | | | | Enotech GmbH | Germany | A | | | For In Situ Type |
| | | III | | | | Ametek | USA | A | | | For In Situ Type |
| | | III | | | | Yokogawa Electric Corporation | Japan | A | | | For In Situ Type |
| | | III | | | | Servo max Group | UK | A | | | For In Situ Type |
| | | III | | | | Sick AG | Germany | A | | | For In Situ Type |
| 23 | Continous Emisson Monitoring system | | | | | | | | | | |
| | | I | | | | Horiba India Pvt ltd | Pune | A | | | Approval conditions as per approval letter no - CQA/NTPC Mauda-II / H-321 / M/S Horiba India Pvt Ltd Dated 03.10.2019 |
| | | I | | | | Yokogawa India Ltd | Bengaluru | A | | | 1. SO2,NOx & CO2 Analyser will be from M/S Yokogawa Electric Corporation Japan .<br>2.Other Conditional as per approval letter no Ref. No.:-CQA/BARH-I / Y-023/ M/s Yokogawa India Ltd dated 21.05.2020 |
| | | I | | | | Adage Automation Pvt Ltd. | Goa | A | | | For M/s Siemens Germany make SO2,NOx & CO2 Analysers |
| | | I | | | | Thermo Fisher Scientific India Pvt. Ltd | Pune | A | | | Approved only for Dilution Extractive Technique<br>1)Analyser (SO2,NOx,CO,CO2,Mercury ), sampling probe ,sample handling system ,umbical cord etc to be supplied from M/S Thermo Fisher USA .<br>2) Other BOI shall be as per LOA approved sources |
| | | I | | | | Emerson Process Management India Pvt Ltd | Pawane | A | | | For M/s Emerson Germany make SO2,NOx & CO2 Analysers other conditions as per approval letter. |
| | | I | | | | Analyser Instruments Co Pvt Ltd | Kota | A | | | Analysers from Fuji Japan & other BOI shall be as per LOA approved sources . |

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| | | I | | | | Envoirenment SA India Pvt Ltd | Navi Mumbai | A | | | Hot Extractive Type /<br>1.Multipoint gas Analyzers MIR-9000 for SO2, NOx,CO2 & CO ,Probe ,Nafyon drier & heater for drier will be of M/S Environment SA France make.<br>2. Other components shall be as per the approval letter ref no CQA/NTPC Telangana/E-335/M/SEnvoirenment SA India dated 12.02.2019 |
| 24 | Furnace Flame viewing system<br>(High Temperature CCTV Components) | | | | | | | | | | |
| | | III | | | | Sertel Electronics Pvt. Ltd. | Chennai | A | | | Approved for Visible type only |
| | | III | | | | Hi Tech System and Service<br>( System Integrator of M/S Lenox USA ) | Kolkata | A | | | 1.M/S Lenox USA Make System<br>2.Pl refer Note-07 |
| | | III | | | | Durag India Instrumentation Pvt Ltd | Bengaluru | A | | | 1.Complete Camera Assembly, IRIS Control etc. from Durag Germany<br>2.Other Component like chiller, vedio monitor, OFC ,Panel from M/S Durag Approved sources |
| | | III | | | | TLT Engg Pvt. Ltd.<br>( System Integrator of M/S Diamond Power USA/ Sweden make system ) | Kolkata | A | | | 1.M/S Diamond Power USA/ Sweden make system<br>2.Pl refre Note-07 |
| | | III | | | | Toshniwal Industries<br>( System Integrator of M/S Mirion UK make system ) | Ajmer | A | | | 1. M/S Mirion UK make system<br>2.Pl refer Note-07 |
| | | III | | | | Diamond Power | USA / Sweden | A | | | |
| | | III | | | | Durag GmbH | Germany | A | | | D-VTA-201 |
| | | III | | | | Lenox | USA | A | | | |
| | | III | | | | Mirion | UK | A | | | |
| | | III | | | | Piper GmbH | Germany | A | | | |
| | | III | | | | Sabota GmbH | Germany | A | | | |
| 25 | H2 Gas Analyser | | | | | | | | | | |
| | | I | | | | ABB India Ltd | Bengaluru | A | | | M/s ABB Germany /UK Make analyser |
| | | I | | | | Adage Automation Pvt. ltd | Goa | A | | | 1.M/s Siemens, Garmany (Calomat 6) Make analyser<br>2. Pl refer Note-07 |
| | | I | | | | Yokogawa India ltd | Bengaluru | A | | | M/s Yokogawa Japan (Gas Densitybased ) Make analyser |
| | | I | | | | SIEMENS | Gurugram | A | | | M/s Siemens, Garmany (Calomat 6) Make analyser |
| | | III | | | | GE Sensing EMEA | Ireland | A | | | Conductivity based |
| | | III | | | | ABB | UK | A | | | |
| | | III | | | | Emerson (Rosemount) | USA | A | | | |
| | | III | | | | Environment One Corporation | USA | A | | | Conductivity based |
| 26 | HEA ignitor | | | | | | | | | | |
| | | I | | | | Durag India Instrumentation Pvt Ltd | Bengaluru | A | | | M/S Durag Germany make HEA Ignitor |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | I | | | | Hindustan Thermometers | Ambala | A | | | Condtional as per approval ref no 01/CQA/0270-102 dated 17.09.2012.Spark tip of their own make is also acceptable |
| | | I | | | | Fives combustion System Pvt Ltd | Vadodara | A | | | |
| | | I | | | | Boiler control Pvt Ltd | Puddukottai (Tamilnadu) | A | | | Approved for Aux Boiler package only |
| | | III | | | | Unison Industries | USA | A | | | |
| | | III | | | | Durag GmbH | Germany | A | | | |
| | | III | | | | Ignition system INC | USA | A | | | |
| | | III | | | | Tesi SPA | Italy | A | | | |
| 27 | High Temp. cable (PTFE/FEP) | | | | | | | | | | |
| | | II | | | | Thermocables | Hyderabad | A | | | |
| | | II | | | | Tempsens | Udaipur | A | | | |
| | | II | | | | Habia cables | Sweden | A | | | |
| | | II | | | | Thermo Electrica BV | Netherland | A | | | |
| | | II | | | | Lapp cables | Germany | A | | | |
| | | II | | | | Kerpen cables | Germany | A | | | |
| | | II | | | | TEW & C | USA | A | | | |
| 28 | Impulse Pipes/Tubes | | | | | | | | | | |
| | | II | | | | Mahrashtra Seamless | Raigarh | A | | | For CS Pipes only |
| | | II | | | | Ratnamani Metals and Tubes | Gandhinagar | A | | | For SS only. |
| | | II | | | | Heavy Metals and Tubes | Gandhinagar | A | | | For SS & CS only. |
| | | II | | | | ISMT | Ahamadnagar | A | | | For CS/ AS upto Gr 22 Pipes only |
| | | II | | | | Nippon Steel & Sumitomo Metals corporation | Japan | A | | | |
| | | II | | | | TPS Tecnitube | Germany | A | | | |
| | | II | | | | Veluric & Manessmann | Germany | A | | | |
| | | II | | | | Trouvay and Cauvin | France | A | | | |
| | | II | | | | Sandvik | Sweden | A | | | For SS only |
| | | II | | | | REMI Edelstahl Tubulars Ltd | Palghar | A | | | |
| 29 | Instrument Cables ( F,G & T/C Cables ) | | | | | | | | | | |
| | | Note-2 | | | | Goyolene Fibers ( India) Pvt Ltd | Silvassa | A | | | F&G Type Cable |
| | | Note-2 | | | | Temsens Instruments Ind Pvt Ltd | Udaipur | A | | | |
| | | Note-2 | | | | Havells India | Alwar | A | | | F Type Cable |
| | | Note-2 | | | | Paramount Communication Ltd | Khuskhera | A | | | |
| | | Note-2 | | | | Polycab | Daman | A | | | |
| | | Note-2 | | | | Delton | Faridabad | A | | | |
| | | Note-2 | | | | KEI | Bhiwadi (Raj) | A | | | |
| | | Note-2 | | | | Elkey Telelinks | Faridabad | A | | | |
| | | Note-2 | | | | CORDS | Kaharani | A | | | |
| | | Note-2 | | | | CORDS | Bhiwadi | A | | | |
| | | Note-2 | | | | Nicco | Kolkata | A | | | |
| | | Note-2 | | | | Universal Cable | Satna | A | | | |
| | | Note-2 | | | | Thermocables | Hyderabad /Mahboobnagar | A | | | |
| | | Note-2 | | | | Gupta Power Inftrastructure Ltd. | Khurdha | A | | | |
| | | Note-2 | | | | CMI | Faridabad | A | | | |
| | | Note-2 | | | | Advance Cables Pvt Ltd | Bengaluru | A | | | F&G Type Cable |
| | | Note-2 | | | | Gemscab Industries Ltd | Bhiwadi (Raj) | A | | | F&G Type Cable |
| | | Note-2 | | | | Apar Industries Limited | Valsad | A | | | F&G Type Cable |
| | | Note-2 | | | | Suyog Electricals Ltd | Halol (Gujrat) | A | | | |
| | | Note-2 | | | | Special Cables Pvt Ltd | Rudrapur | A | | | |
| | | Note-2 | | | | T C Communication | Ghaziabad | A | | | |

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| | | Note-2 | | | | TEW & C | USA | A | | | |
| | | Note-2 | | | | Habia cables | Sweden | A | | | |
| | | Note-2 | | | | Kerpen cables | Germany | A | | | |
| | | Note-2 | | | | Lapp cables | Germany | A | | | |
| | | Note-2 | | | | Thermo elecrta Bv | Netherland | A | | | |
| 30 | Intelligent Battery charger 24V DC / DCDB/BHMS | | | | | | | | | | |
| | | II | | | | Chabbi Electricals | Jalgaon | A | | | Rectifier module, Controller module and Battery Health monitoring system shall be of M/s Vertiv make |
| | | II | | | | Eltek SGS Pvt Ltd | Gurugram | A | | | |
| | | II | | | | Vertiv Energy Pvt ltd | Pune | A | | | |
| 31 | Large Video Screen (LED Based) | | | | | | | | | | |
| | | I | | | | Pyrotech Electronics Pvt Ltd | Udaipur | A | | | |
| | | I | | | | Delta India Electronics Pvt Ltd | Gurugram | A | | | |
| | | I | | | | Barco Electronics system (P) Ltd | Noida | A | | | |
| | | I | | | | Planner System Inc | USA | A | | | |
| 32 | Level switch- Conductivity type | | | | | | | | | | |
| | | II | | | | Raman Instruments ( System integrator of Delta Morbey/ Emerson Mobrey /Solartron -Mobrey) | Navi Mumbai | A | | | 1.M/S Emerson (Morbey) UK system<br>2.Pl refer Note-07 |
| | | II | | | | HI Tech System & services Ltd ( System Integrator of Levelstate systems Ltd ,UK ) | Kolkata | A | | | 1. M/S Levekstate UK System .Vessel from M/s Hi Tech<br>2.Pl refer Note-07 |
| | | II | | | | BHEL | Trichurapalli | A | | | |
| | | III | | | | Emerson -Mobrey (Solartron mobrey) | UK | A | | | |
| | | III | | | | Levelstate Systems Ltd | UK | A | | | |
| | | III | | | | Yarway | USA | A | | | |
| 33 | Local Instrument Enclosure/Rack | | | | | | | | | | |
| | | I | | | | Pyrotech Electronics Pvt. Ltd | Udaipur | A | | | BOI from LOA approved sources |
| | | I | | | | Sajas electrical | Trichurapalli (Tamilnadu) | A | | | BOI from LOA approved sources |
| | | I | | | | Prammen | Puddukottai (Tamilnadu) | A | | | BOI from LOA approved sources |
| | | I | | | | Chemin C&I Pvt Limited | Puducherry | A | | | 1- BOI from LOA approved sources<br>2.Fabrication at M/s LUFT tech India<br>3- Painting at M/s Supreame Coater & Fabricator |
| 34 | Master Slave Clock System | | | | | | | | | | |
| | | I | | | | Signals and Systems Pvt. Ltd. (SANDS ) | Chennai | A | | | |
| | | I | | | | Masibus | Gandhinagar | A | | | |
| | | I | | | | Sertel Electronics Pvt. Ltd. | Chennai | A | | | |
| | | II | | | | Hopf Electronik GmbH | Germany | A | | | |
| | | II | | | | Hathway | USA | A | | | |
| | | II | | | | Mein Berg | Germany | A | | | |
| | | II | | | | Moser Baer AG | Switzerland | A | | | |
| 35 | Mercury Analyser | | | | | | | | | | |

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| | | I | | | | Analyser Instrument Co. Pvt Ltd (AIC) | Kota | A | | | 1. Mercury Analyzer from PS Analytical UK<br>2.System integration & supply of components like, Enclosure with AC, calibration cylinders, PC will be done by M/s Analyser Instrument Co. Pvt Ltd (AIC) Kota .<br>3.Pl refer Note-07 |
| | | III | | | | Environment SA India Pvt Ltd | Navi Mumbai | A | | | 1-Mercury analyzer with accessories will be from Mercury instruments GmbH Germany .<br>2- Other components like, sample line between probe to mercury analyzer will be supplied by M/s Environment SA India Pvt Ltd . |
| | | III | | | | Thermo Fisher Scientific India Pvt Ltd | Pune | A | | | 1. Mercury Analyser shall be from Thermofisher USA<br>2. Other approval conditions are as per approved letter ref no 01/CQA/9578-001/Thermofisher dated 09/12/2016 |
| | | III | | | | Durag India Instrumentation Pvt Ltd | Bengaluru | A | | | Analyser from M/s Verewa Umwelt Germany |
| | | III | | | | Mercury Instruments GmbH | Germany | A | | | |
| | | III | | | | SICK AG | Germany | A | | | |
| | | III | | | | Themofisher | USA | A | | | |
| | | III | | | | Lumax | Russia | A | | | For AAQMS System |
| 36 | PA System (IP Based) | | | | | | | | | | |
| | | III | | | | BNA Technology Consulting Ltd. | Bengaluru | A | | | BOI shall be from LOA approved sources. |
| | | III | | | | Armtel | Russia | A | | | |
| | | III | | | | Zenitel | Norway | A | | | 1.PA system active component , Proprietary item will be Zenitel Norway make<br>2.Other components & BOI shall be from LOA approved sources |
| | | III | | | | Commend International GMBH | Austria | A | | | |
| 36A | PA System (IP Based)/System Integrators | | | | | | | | | | note-7 |
| | | III | | | | Willstrong Solutions Pvt. Ltd | Greater Noida | A | | | For M/s Armtel Russia system<br><br>Approval conditions as per approval letter no Patratu-QA/9585-001-102/VA-Willstrong Dated: 21.12.20 |
| | | III | | | | Toshniwal Industries Pvt ltd | Ajmer | A | | | For M/s Commend Austria make system |
| | | III | | | | Aishan Technologies Pvt Ltd | Bengaluru | A | | | For M/s Zenitel Norway make system |
| | | III | | | | Haritasa Checkmate Electronics Pvt Ltd | Bengaluru | A | | | For M/s Commend Austria make system |
| | | III | | | | Netware Computer Pvt Ltd | New Delhi | A | | | For M/s Commend Austria make system |
| | | I | | | | M/S L&T Technology Services Limited | Faridabad | A | | | For M/s Commend Austria make system |
| 37 | PLC System | | | | | | | | | | |
| | | I | | | | Emerson Automation solution Intellegent plateforms Pvt Ltd | Bengaluru | A | | | PLC modules from M/s Emerson USA & BOI shall be from LOA approved sources |
| | | I | | | | ABB India Ltd | Bengaluru | A | | | |

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| | | I | | | | Schneider Electric system india Pvt Ltd | Chennai | A | | | PLC modules from M/s Schneider France & BOI shall be from LOA approved sources |
| | | I | | | | Rockwell | Sahibabad | A | | | |
| | | I | | | | Siemens | Nasik | A | | | |
| | | I | | | | Honeywell | Pune | A | | | PLC modules from M/s Honeywell ,S.Korea & BOI shall be from LOA approved sources |
| | | I | | | | Schneider Electric India Pvt Ltd | Bengaluru | A | | | PLC modules from M/s Schneider France & BOI shall be from LOA approved sources |
| 37-A | PLC System Integrators | | | | | | | | | | **Note-11 and note-7** |
| | | I | | | | Ladder Automation Solution Pvt Ltd | Gurugram | A | | | For M/s Honeywell make system |
| | | I | | | | Virtual Automation | Ranga Reddy (Telangana) | A | | | For M/s Schneider make system |
| | | I | | | | Cotmac Electronics Pvt Ltd | Pune | A | | | For M/s SIEMENS make system |
| | | I | | | | Tech-Masters | Hyderabad | A | | | For M/s Emerson make system |
| | | I | | | | Powertech Switchgear (I) Pvt Ltd | Sonepat | A | | | For M/s Schneider make system |
| | | I | | | | Unity Industrial Automation Pvt Ltd | Delhi | A | | | For M/s Rockwell make system |
| | | I | | | | EMCONS | Ranchi | A | | | For M/s Rockwell make system |
| | | I | | | | Divya Engineers | Chennai | A | | | For M/s SIEMENS make system |
| | | I | | | | M D Industries | Vadodara | A | | | For M/s Emerson make system |
| | | I | | | | Velox automation | Surat | A | | | For M/s SIEMENS make system |
| | | I | | | | Vision Comptel | Kolkata | A | | | For M/s Emerson make system |
| | | I | | | | Adaptive Engineering Private Limited | Ahmedabad | A | | | For M/s Schneider make system |
| | | I | | | | Greenwave Solutions Private Limited | Kolkata | A | | | For M/s Rockwell make system |
| | | I | | | | Dreamz Automation | Ghaziabad | A | | | For M/s SIEMENS make system |
| | | I | | | | Creative Robotics | Ghaziabad | A | | | For M/s Honeywell make system |
| | | I | | | | Kruti Techno Engineer Pvt Ltd | Chhapraula (GB Nagar | A | | | For M/s SIEMENS make system |
| | | I | | | | EDS Instruments & Systems Pvt Ltd | Chennai | A | | | For M/s Honeywell make system |
| | | I | | | | Delsys Automation Technologies Pvt Ltd | Chennai | A | | | For M/s Emerson make system |
| | | I | | | | Hindustan Controols and Equipment Ltd | Kolkata | A | | | For M/s Emerson make system |
| | | I | | | | Vollkraft Engineering And Consultant (P) Ltd | Kolkata | A | | | For M/s Emerson make system |
| | | I | | | | SSM Infotech Solutions Pvt Ltd | Surat | A | | | For M/s Schneider make system |
| | | I | | | | Sun Industrial Automation & Solutions | CHENNAI | A | | | For M/s Schneider make system |
| | | I | | | | ARTEE FLOW CONTROL PVT LTD | ANKLESHWAR | A | | | For M/s Honeywell make system |
| | | I | | | | CSS AUTOMATION PVT. LTD | KOLKATA | A | | | For M/s Emerson make system |
| | | I | | | | ARMAX AUTOMATION PVT LTD | BANGALORE | A | | | For M/s ABB make system |
| | | I | | | | KAIZEN AUTOMATION | AHEMDABAD | A | | | For M/s Schneider make system |
| | | I | | | | ELECON PERIPHERALS LIMITED | ANAND | A | | | For M/s ABB make system |
| | | I | | | | M/s Skytech Infinite Platform Private Limited | Bangalore | A | | | For M/s Emerson make system |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 38 | Pneumatic Actuator Regulating (Power Cylinder HAD,CAD SADC & Burner Tilt ) | | | | | | | | | | |
| | | I | | | | Instrumentation Limited | Palakkad (Kerala) | A | | | |
| | | I | | | | Kelton | Cochin (Alleppy) | A | | | |
| | | I | | | | SMC Corporation India Private Ltd | Noida | A | | | Up to Bore size 12 inches |
| | | I | | | | IMI Norgren Herion Pvt ltd | Noida | A | | | |
| | | I | | | | NELES INDIA PRIVATE LIMITED | Dombivli | A | | | |
| | | II | | | | Dong Woo Valve Control Co. Ltd | S.Korea | A | | | |
| | | II | | | | Shin Hwa Engineering Co. Ltd | S.Korea | A | | | |
| 39 | Radar type level transmitter | | | | | | | | | | |
| | | III | | | | Limaco | Russia | A | | | High Frequency Type |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | For M/s Emerson Singapore make |
| | | III | | | | Endress & Houser | Aurangabad | A | | | |
| | | III | | | | SIEMENS | Canada | A | | | |
| | | III | | | | B M Technology | Italy | A | | | For Non Contact type |
| | | III | | | | Magnetrol | Belgium | A | | | |
| | | III | | | | ABB | USA | A | | | K-Tech Brand |
| | | III | | | | Endress & Houser | Germany | A | | | |
| | | III | | | | Saab Rosemeount | Sweden | A | | | |
| | | III | | | | Emerson Process Management | Singapore | A | | | Rosemount 3300 series for GW Radar & 5600 Series for Non-Contact type |
| | | III | | | | Endress & Houser | Germany | A | | | |
| | | III | | | | Vega Grieshaber KG | Germany | A | | | |
| 40 | Short Term Fire Proof cable | | | | | | | | | | |
| | | III | | | | nVent Solutions limited | UK | A | | | |
| | | III | | | | Wrexham Mineral | UK | A | | | |
| | | III | | | | KME | Italy | A | | | |
| 41 | SWAS (Sampling Handling System and Dry Panel) | | | | | | | | | | |
| | | I | | | | Emerson Process Management Ltd | Navi Mumbai | A | | | Analysers and Other BOI Componets from LOA agreed source |
| | | I | | | | Forbes Marshall | Pune | A | | | Analysers and Other BOI Componets from LOA agreed source |
| | | I | | | | SEPL | Pune | A | | | Analysers and Other BOI Componets from LOA agreed source |
| | | I | | | | YOKOGAWA INDIA LTD | Bangalore | A | | | Analysers and Other BOI Componets from LOA agreed source |
| 42 | Water Analyser (Chloride, Conductivity, Dissolved Oxygen,pH, Hydrazine, Concentration , Phosphate, Silica, Soldium,Turbidity, Total Iron, Degassed Cation Conductivity ) | | | | | | | | | | |
| | | III | | | | Emerson Process Management Pvt Ltd | Pawane | A | | | For Conductivity,pH, Dissloved Oxygen, Turbidity |

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| | | III | | | | Mettlet Toledo India Pvt Ltd | Vasai | A | | | For pH Analyser<br>(1. PH analyser from M/S Mettler Toledo GmbH Switzerland<br>2. Other components like, Housing, Panel mounting kit, Tubing's & easy clean mechanism will be supplied by M/s Mettler Toledo India Pvt Ltd ) |
| | | III | | | | Endress Hauser India Pvt. Limited | Mumbai | A | | | For pH Analyser<br>(1. pH sensor with cable , analyser ,retract & cleaning assembly , electrolyte reservoir ( As applicable) will be supplied from Principals of M/S Endress Hauser India Pvt. Limited.<br>2. Other components like, Flow through assembly shall be supplied from M/S Endress Hauser India Pvt. Limited approved sources. ) |
| | | III | | | | Thermo Fisher Scientific | USA | A | | | For Chloride,Dissloved Oxygen,Hydrazine |
| | | III | | | | ABB | UK | A | | | For Chloride,Dissloved Oxygen,Hydrazine, Phosphate, Silica,Sodium,Turbidity |
| | | III | | | | Hach | USA | A | | | For Conductivity, pH,Concentration, Phosphate, Silica,Turbidity |
| | | III | | | | ABB | USA | A | | | For Conductivity, pH |
| | | III | | | | Yokogawa | Japan | A | | | For Conductivity |
| | | III | | | | Hach | Switzerland | A | | | For Dissloved oxygen, Hydrazine, Silica,Sodium |
| | | III | | | | Yokogawa | Japan | A | | | For pH |
| | | III | | | | Eutech Instrument PTE Ltd | Singapore | A | | | For Silica |
| | | III | | | | Orion | USA | A | | | For Sodium |
| | | III | | | | SWAN Analytische Instrumente AG | Hinwil /Switzerland | A | | | For pH Analyzer , Conductivity analyser ,Dissolve Oxygen analyser , silica Analyzer , Sodium Analyzer , Hydrazine analyser , Turbidity analyser |
| | | I | | | | Forbes Marshall Pvt Ltd | Pune | A | | | For Conductivity & pH analyser |
| | | I | | | | METTLER TOLEDO INDIA PVT LTD | Mumbai | A | | | For Chloride Analyser |
| | | | | | | | | | | | |
| 43 | Temp Transmitter | | | | | | | | | | |
| 43-A | Temp Transmitter | | | | | | | | | | |
| | | III | | | | Endress & Houser | Aurangabad | A | | | |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | For M/s Emerson Singapore make |
| | | III | | | | Yokogawa | Bengaluru | A | | | Make Yokogawa japan and caliberation at Yokogawa Banglore |
| | | III | | | | ABB | Bengaluru | A | | | For M/s ABB Germany make |
| | | III | | | | WIKA Instruments India Pvt Ltd | Pune | A | | | For M/s WIKA Germany make Model no T-32 |
| | | III | | | | Honeywell Automation India Ltd | Pune | A | | | |
| | | III | | | | Yokogawa | Japan | A | | | |
| | | III | | | | Moore | USA | A | | | |
| | | III | | | | M System co Ltd | Japan | A | | | Model No-B3HU-0 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | III | | | | Emerson | U.S.A/Singapore/ Germany | A | | | |
| | | III | | | | ABB | Germany | A | | | |
| | | III | | | | Emerson Process Management | Germany | A | | | |
| 43-B | Temp Transmitter -Field Bus based Single/Dual Input | | | | | | | | | | |
| | | I | | | | ABB India Ltd | Bengaluru | A | | | One no of TT will be available at DCS supplier for function testing of field bus communication with DCS during FAT |
| 44 | Turbine supervisiory Instruments along with vibration analysis system. | | | | | | | | | | |
| | | I | | | | GE | Pune | A | | | For GE Bentlly ,USA make system |
| | | I | | | | Meggitt India Pvt ltd | Bengaluru | A | | | For Meggitt (Vibrometer) Switzerland make system |
| | | I | | | | Forbes Marshall | Pune | A | | | For Shinkawa ,Japan make system |
| | | II | | | | GE BENTLY | USA | A | | | |
| | | II | | | | SHINKAWA | JAPAN | A | | | |
| | | II | | | | MEGGITT | Switzerland | A | | | |
| 45 | Ultrasonic Type Flow Meter (for Stack) | | | | | | | | | | |
| | | III | | | | Sick India Pvt ltd | Mumbai | A | | | For Sick AG Germany make |
| | | III | | | | Sick AG | Germany | A | | | |
| | | III | | | | Durag | Germany | A | | | |
| | | III | | | | Teledyne | USA | A | | | |
| 46 | Ultrasonic type level Transmitter | | | | | | | | | | |
| | | III | | | | EIP Enviro | Noida | A | | | 1-Ultrasonic level Tx shall be BM Technology Italy make<br>2-Required mounting arrangement , Testing, Calibration shall be carried out at M/s EIP Works. |
| | | III | | | | E & H | Aurangabad | A | | | |
| | | III | | | | Emerson Process Management Ltd | Pawane | A | | | Complete Intrument Transmitter & Probe to be procured from Mobrey UK , only intergration & configuration at Pawane works |
| | | III | | | | BM Technology | Italy | A | | | |
| | | III | | | | Siemens Miltronics | Canada | A | | | |
| | | III | | | | Nivelco Process Control | Hungary | A | | | |
| | | III | | | | E & H | Germany | A | | | |
| | | III | | | | HAWK Measurement PTY Ltd | Australia | A | | | |
| 47 | UPS With ACDB | | | | | | | | | | |
| | | Note-5 | | | | Vertive Energy Pvt Ltd | Pune | A | | | Upto 125 KVA for 1 phase and 300 KVA for 3 Phase |
| | | Note-5 | | | | Vertive Energy Pvt Ltd | Mumbai | A | | | Upto 160 KVA |
| | | Note-5 | | | | Hitachi Hirel Power Electronics Pvt Ltd | Gandhinagar | A | | | Upto 200 KVA, |
| | | Note-5 | | | | Fuji Electric Consul Neowatt Private Limited | Pune | A | | | Up to 100 KVA single phase |
| | | Note-5 | | | | KELTRON | Trivendrum | A | | | |
| | | Note-5 | | | | Merlin & Gerin | France | A | | | |
| | | Note-5 | | | | Gutor | Switzerland | A | | | |
| | | Note-5 | | | | AEG | Germany | A | | | |
| | | Note-5 | | | | Fuji Electric | Japan | A | | | |
| 48 | Vibration Monitoring System | | | | | | | | | | |

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| | | II | | | | Sensonics Technology India | Kundli | A | | | For Sensonic UK system |
| | | II | | | | BHEL | Bengaluru | A | | | 1. Imported items like Vibration Monitors, Cross Connection Cables, Buffered Output Modules, and Piezoelectric Vibration Sensors, Eddy Current type Proximity Probe, Extension Cable and Signal Conditioner will be procured from Valmet Automation, Finland.<br>2.Indigenous items like Communication cables, networking components, blank panels, TB, OWS will be procured from NTPC approved sources. |
| | | II | | | | IRD Mechanlysis Ltd | Thane | A | | | Vibration sensors will be sourced from M/s Hansford UK ,however brand name of IRD and its logo is acceptable with suitable tracebility of M/s Hansford ,UK. |
| | | II | | | | Forbes Marshall Pvt Limited | Pune | A | | | VMS hardware , Sensors ,extention cables shall be shinkawa Japan make .2. All other BOI shall be from LOA agreed sources |
| | | II | | | | GE | Pune | A | | | For GE Bentley , USA Make |
| | | II | | | | Rockwell Automation | Sahibabad | A | | | For Rockwell USA make |
| | | II | | | | SKF | Pune | A | | | For SKF USA make |
| | | II | | | | Imageneous Engineering Pvt Ltd | Vadodara | A | | | 1-For Meggitt Switzerland make<br>2- Refer note 7 |
| | | II | | | | Shinkawa | Japan | A | | | |
| | | II | | | | GE | USA | A | | | Bentley Niveda brand |
| | | II | | | | Meggitt | Switzerland | A | | | |
| | | II | | | | Sensonic Limited | UK | A | | | |
| 49 | Wireless Solution (Microwave Tower Communication) | | | | | | | | | | |
| | | I | | | | L&T Technology Services (LTTS) | Bengaluru | A | | | 1- Wireless Product (Access Point, Antenna) shall be M/s Cambium UK Make<br>2- Other Item like Switch, Cat-6 Cable can be supplied from M/s LTTS approved sources meeting technical requirements. |
| | | I | | | | Lotus wireless technologies India Pvt Ltd | Visakhapatnam | A | | | |
| | | I | | | | Sheetal Wireless Technologies Pvt Ltd | Pune | A | | | |
| | | III | | | | Proxim Wireless Corporation | USA | A | | | BOI shall be as per approval letter |
| 50 | Field Bus Cable/ Profibus Cable- PA & DP type | | | | | | | | | | |
| | | I | | | | LAPP India Pvt Ltd | Bangalore | A | | | |
| | | I | | | | M/s Thermo Cables Ltd | HYDERABAD | A | | | |
| 51 | Field bus components ( Field bus modules ,segment protector ,surge protector & SS JB ) | | | | | | | | | | |
| | | III | | | | Phoenix Contact Inc | USA | A | | | Materiall will be allowed to dispatch from the vendor works as CAT-III item ,however all material except SS junction box will be available at DDCMIS supplier works for functional testing . |

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| | | III | | | | Pepperl + Fuchs Pte Ltd | Singapore | A | | | Materiall will be allowed to dispatch from the vendor works as CAT-III item ,however all material will be available at DDCMIS supplier works for functional testing . |
| 52 | Stockyard Management System( Including 3D profiling scanner ,Thermal Imaging Camera, RTK GPS) | | | | | | | | | | |
| | | III | | | | TSA | Brazil | A | | | For 3D profiling / Tripple-IN Germany make |
| | | I | | | | EIP Enviro | Noida | A | | | For 3D profiling /<br>1-Tripple-IN Germany make Laser Scanner and RPU along with software from TSA Brazil<br>inline with the M/s TSA Letter.<br>2- Other item like ethernet cable, Ethernet Switch, Junction Box required for execution of 3D<br>stockpile managemment system can be supplied by EIP Enviro |
| 53 | Perimeter Intrusion Detection System | | | | | | | | | | |
| | | III | | | | Senstar | Canada | A | | | |
| 54 | Radar based Perimeter Surveillance System | | | | | | | | | | |
| | | III | | | | Magos System Ltd | Israel | A | | | Third Party "Cyber Penetration report " shall be provided along with material TC/COC |
| 55 | Thermal Camera ( PTZ) | | | | | | | | | | |
| | | III | | | | FLIR Commercial Systems INC | USA | A | | | |
| Main Contractor approved sources (Note-12) | | | | | | | | | | | |
| MC-1 | Amonia Analyser | III | | | | Main Contractor Approved Sources | | | | | |
| MC-2 | Amonia leak detector | III | | | | Main Contractor Approved Sources | | | | | |
| MC-3 | Air Filter Regulator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-4 | Anemometer | III | | | | Main Contractor Approved Sources | | | | | |
| MC-5 | Annunciator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-6 | Battery Health Monitoring System | III | | | | Main Contractor Approved Sources | | | | | |
| MC-7 | Biofouling/ Deposit Monitor | III | | | | Main Contractor Approved Sources | | | | | |
| MC-8 | Coal bunker Level monitor | III | | | | Main Contractor Approved Sources | | | | | |
| MC-9 | Compression Fittings(SS) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-10 | Condensing Pots | III | | | | Main Contractor Approved Sources | | | | | |
| MC-11 | Conduits /Pipe (GI) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-12 | Conduits lead coated ( Flexible ) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-13 | Copper tubing/Brass connectors | III | | | | Main Contractor Approved Sources | | | | | |
| MC-14 | Coriolios Type Mass Flow meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-15 | Coupling /Interposing Relays | III | | | | Main Contractor Approved Sources | | | | | |
| MC-16 | Density Indicator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-17 | Desk for OWS/EWS/Printer/Server | III | | | | Main Contractor Approved Sources | | | | | |
| MC-18 | Digital Indicators | III | | | | Main Contractor Approved Sources | | | | | |
| MC-19 | Dust Sensor | III | | | | Main Contractor Approved Sources | | | | | |
| MC-20 | Dew point sensor/meter (H2) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-21 | Flow Gauge | III | | | | Main Contractor Approved Sources | | | | | |
| MC-22 | Flow Indicator cum Totaliser | III | | | | Main Contractor Approved Sources | | | | | |

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| Sr No | Item Description | QP Inspection Category | QP No | QP submission SCH | QP approval SCH | Proposed Sub Supplier | Country | SS Approval_Status (Note-1) | SS Detail Sub.SCH | SS Approval SCH | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MC-23 | Flow Switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-24 | FRP Junction Box | III | | | | Main Contractor Approved Sources | | | | | |
| MC-25 | Furniture for control Room( Chair, Almira, Lock) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-26 | Furnace exit gas temp probe | III | | | | Main Contractor Approved Sources | | | | | |
| MC-27 | Graphic Interface Unit | III | | | | Main Contractor Approved Sources | | | | | |
| MC-28 | Hand Held Calibrator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-29 | Hart Management System | III | | | | Main Contractor Approved Sources | | | | | |
| MC-30 | Humidistat / Thermostat / Gyserstat / Airstat | III | | | | Main Contractor Approved Sources | | | | | |
| MC-31 | Instant Corrosion Rate Monitor & Portable Corrosion Meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-32 | Impact head type flow element | III | | | | Main Contractor Approved Sources | | | | | |
| MC-33 | Instrument Tube Fittings (Air) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-34 | Instrument Valve | III | | | | Main Contractor Approved Sources | | | | | |
| MC-35 | IR Detector | III | | | | Main Contractor Approved Sources | | | | | |
| MC-36 | KVM Switch/Matrix KVM Switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-37 | Level gauge (Transperent & Reflex, Tubular type) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-38 | Level Indicator (Float & Board type) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-39 | Level switch - Float/Displacer Type | III | | | | Main Contractor Approved Sources | | | | | |
| MC-40 | Level Switch (RF Type) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-41 | Level switch capacitance type | III | | | | Main Contractor Approved Sources | | | | | |
| MC-42 | Limit Switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-43 | Maintenance and Calibration Equpiment | III | | | | Main Contractor Approved Sources | | | | | |
| MC-44 | Mini UPS-Type C configuration | III | | | | Main Contractor Approved Sources | | | | | |
| MC-45 | Orifice plate assembly | III | | | | Main Contractor Approved Sources | | | | | |
| MC-46 | On line carbon in Ash analyser | III | | | | Main Contractor Approved Sources | | | | | |
| MC-47 | Pitot Tube | III | | | | Main Contractor Approved Sources | | | | | |
| MC-48 | Pr./Vaccum./DP Gauges | III | | | | Main Contractor Approved Sources | | | | | |
| MC-49 | Press, DP, Vaccum Switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-50 | Printer (Dot Matrix/Inkjet / Laser) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-51 | Psycrometer | III | | | | Main Contractor Approved Sources | | | | | |
| MC-52 | Pulse jet Controller | III | | | | Main Contractor Approved Sources | | | | | |
| MC-53 | Pulse Valve | III | | | | Main Contractor Approved Sources | | | | | |
| MC-54 | Residual Chlorine Analyser | III | | | | Main Contractor Approved Sources | | | | | |
| MC-55 | Rotameter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-56 | Reverse Rotation Indicator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-57 | Synchronising Relay | III | | | | Main Contractor Approved Sources | | | | | |
| MC-58 | Synchroscope | III | | | | Main Contractor Approved Sources | | | | | |
| MC-59 | Semaphore Indicators | III | | | | Main Contractor Approved Sources | | | | | |
| MC-60 | Sight Flow Indicator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-61 | Smart Positioner | III | | | | Main Contractor Approved Sources | | | | | |
| MC-62 | Socket Weld Fittings | III | | | | Main Contractor Approved Sources | | | | | |
| MC-63 | Solenoid Valve | III | | | | Main Contractor Approved Sources | | | | | |
| MC-64 | Solid Mass Flow Meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-65 | Terminal Block (Cage and Clamp type) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-66 | Temperature cum Humidity Indicator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-67 | Temperature Element(Thermocouple , RTD & Thermowell) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-68 | Temperature Gauge( With Thermowell) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-69 | Temperature Switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-70 | Transducer | III | | | | Main Contractor Approved Sources | | | | | |
| MC-71 | Tube thicknes Meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-72 | Voltmeter/ Watterhour Meter | III | | | | Main Contractor Approved Sources | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| MC-73 | Valve manifolds | III | | | | Main Contractor Approved Sources | | | | | |
| MC-74 | Electric to Pneumatic Converter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-75 | Network components | III | | | | Main Contractor Approved Sources | | | | | |
| MC-76 | Isolator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-77 | ORP Monitor /Analyser | III | | | | Main Contractor Approved Sources | | | | | |
| MC-78 | Ultrasonic Type Flow Transmitter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-79 | Chlorine Leak detector | III | | | | Main Contractor Approved Sources | | | | | |
| MC-80 | Density Meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-81 | Electro Magenetic Flow meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-82 | Postive dispalcement Type Flow Meter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-83 | Level Scanner (3 D)for Solid Application | III | | | | Main Contractor Approved Sources | | | | | |
| MC-84 | Mosaic tiles /Console items | III | | | | Main Contractor Approved Sources | | | | | |
| MC-85 | Electrical Control Panel ( UCP/Backup) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-86 | Electrical Indicating Instruments (Mosaic Compatible) | III | | | | Main Contractor Approved Sources | | | | | |
| MC-87 | OWS/EWS/Server | III | | | | Main Contractor Approved Sources | | | | | |
| MC-88 | Bio Matrix Reader | III | | | | Main Contractor Approved Sources | | | | | |
| MC-89 | ANPR | III | | | | Main Contractor Approved Sources | | | | | |
| MC-90 | UVSS | III | | | | Main Contractor Approved Sources | | | | | |
| MC-91 | Comd & Control System | III | | | | Main Contractor Approved Sources | | | | | |
| MC-92 | Access & Controller Software | III | | | | Main Contractor Approved Sources | | | | | |
| MC-93 | IR LED based Illuminator | III | | | | Main Contractor Approved Sources | | | | | |
| MC-94 | ATB Bolloard | III | | | | Main Contractor Approved Sources | | | | | |
| MC-95 | Boom Barrier | III | | | | Main Contractor Approved Sources | | | | | |
| MC-96 | Touchless biomatric recorder | III | | | | Main Contractor Approved Sources | | | | | |
| MC-97 | GPS Sensor based Vehicle Monitoring system | III | | | | Main Contractor Approved Sources | | | | | |
| MC-98 | 10mp digital camera with tripod for photo capture | III | | | | Main Contractor Approved Sources | | | | | |
| MC-99 | 2D GIS map application | III | | | | Main Contractor Approved Sources | | | | | |
| MC-100 | Audible alarm device | III | | | | Main Contractor Approved Sources | | | | | |
| MC-101 | CameraPoles | III | | | | Main Contractor Approved Sources | | | | | |
| MC-102 | Card Reader | III | | | | Main Contractor Approved Sources | | | | | |
| MC-103 | Door Frame Metal Detector -DFMD | III | | | | Main Contractor Approved Sources | | | | | |
| MC-104 | Door sensor | III | | | | Main Contractor Approved Sources | | | | | |
| MC-105 | Egress Switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-106 | EM LOCK | III | | | | Main Contractor Approved Sources | | | | | |
| MC-107 | Emergency exit / door override switch | III | | | | Main Contractor Approved Sources | | | | | |
| MC-108 | Emergency Siren /Hooter | III | | | | Main Contractor Approved Sources | | | | | |
| MC-109 | Flap barrier | III | | | | Main Contractor Approved Sources | | | | | |
| MC-110 | Flash Lights for covering perimeter area for clear view from PTZ in night time | III | | | | Main Contractor Approved Sources | | | | | |
| MC-111 | Geo fencing | III | | | | Main Contractor Approved Sources | | | | | |
| MC-112 | Glass Break switch at Emergency Exit | III | | | | Main Contractor Approved Sources | | | | | |
| MC-113 | Guard tour | III | | | | Main Contractor Approved Sources | | | | | |
| MC-114 | Half Height Turnstile | III | | | | Main Contractor Approved Sources | | | | | |
| MC-115 | Handheld Walkie - Talkie | III | | | | Main Contractor Approved Sources | | | | | |
| MC-116 | HHMD | III | | | | Main Contractor Approved Sources | | | | | |
| MC-117 | Long Range RFID Reader | III | | | | Main Contractor Approved Sources | | | | | |
| MC-118 | Monitors 24 Inch Full HD | III | | | | Main Contractor Approved Sources | | | | | |
| MC-119 | Network Panel | III | | | | Main Contractor Approved Sources | | | | | |
| MC-120 | Optical Time Domain Reflector-meter (OTDR) with all accessories | III | | | | Main Contractor Approved Sources | | | | | |
| MC-121 | Panic Button with Audible Alarm | III | | | | Main Contractor Approved Sources | | | | | |
| MC-122 | Panic button/SOS button supportin SIP protocol | III | | | | Main Contractor Approved Sources | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| MC-123 | RFID based Stickers | III | | | | Main Contractor Approved Sources | | | | | |
| MC-124 | Sliding Gate | III | | | | Main Contractor Approved Sources | | | | | |
| MC-125 | SMS gateway | III | | | | Main Contractor Approved Sources | | | | | |
| MC-126 | Storage Device (SAN/NAS/DAS) of 100 TB each | III | | | | Main Contractor Approved Sources | | | | | |
| MC-127 | Traffic Light | III | | | | Main Contractor Approved Sources | | | | | |
| MC-128 | Turnstile - half height | III | | | | Main Contractor Approved Sources | | | | | |
| MC-129 | SPIKE BARRIER | III | | | | Main Contractor Approved Sources | | | | | |
| MC-130 | CHAIN LINK FENCE | III | | | | Main Contractor Approved Sources | | | | | |
| MC-131 | X-ray Baggage Scanner | III | | | | Main Contractor Approved Sources | | | | | |
| MC-132 | Static Radio Set | III | | | | Main Contractor Approved Sources | | | | | |
| MC-133 | EPABX equipments | III | | | | Main Contractor Approved Sources | | | | | |
| | | | | | | | | | | | |

**LEGENDS :**

**1.0 SYSTEM SUPPLIER / SUB SUPPLIER APPROVAL STATUS CATEGORY**

**A - For those items proposed vendor is acceptable to Customer. To be indicated with letter "A" in the list alognwith the condition of approval, if any.**

**2.0 QP INSPECTION CATEGORY :**

**CAT - I : For those items the Quality Plans are approved by Customer and final acceptance will be on physical inspection witness by Customer**

**CAT - II : For those items the Quality Plans are approved by Customer. However no physical inspection shall be done by Customer. The final acceptance by Customer shall be on the basis of review of documents.**

**CAT - III :For these items Quality control to be exercised as per Main contractor Quality Assurance System. The final acceptance by NTPC shall be on the basis of Certificate of Conformance (COC) by Main Contractor.**

**UNITS/WORKS : Place of manufacturing- Place of main supplier of multi units/works.**

**NOTE - 1 : A: Vendors to submit project specific documents as per Sub-QR requirements in case the Vendor is approved under collaboration agreement.**
**B: In case approved sub vendor is offering product with latest model/series apart from earlier approved, vendors to submit project specific documents as per Sub-QR requirements.**

**NOTE - 2 : For Insrument cable <= 1 KM inspection category CAT - III, For > 1 KM to <= 10 KM Inspecton category CAT - II COC & FOR> 10 KM Inspection category CAT-I**

**NOTE -3 : For Fiber Optic cable <=10KM inspection category CAT - III & for > 10KM Inspection category CAT-II**

**NOTE-4 : Batteries for UPS <= 10 KVA and batteries for intelligent battery charger 24 V DC <= 40 Amp inspection category CAT-III & for Batteries for UPS> 10KVA and batteries for intelligent battery charger 24 V DC > 40 Amp rating inspection**

**NOTE-5 UPS <= 10 KVA rating inspection category CAT-III & for > 10KVA rating inspection category CAT-I**

**NOTE - 7 - EMPTY CABINETS, COMPUTERS, SIGNAL ISOLATOR/ MULTIPLIER and TB SHALL ALSO BE ACCEPTABLE FROM OWNER ACCPETED IN QP. IF THE TOTAL INTEGRATED PANEL AND FAT IS CONDUCTED INDEGENEOUSLY**

**NOTE-8 : For the C & I instrumnts mounted on the skid of the main item or supplied as a integral part of the main item, instrument to be supplied as per proven practice of the manufacturer meeting the Customer technical specification requirement.**

**NOTE-9- This item is a bought out componenet of main equipments like DDCMIS ,PLC,TSI,CCTV ,PA system etc**

**NOTE-10- For these controlled items, vendor shall be proposed for owner accpetance with-in the agreed contract schedule of the package**

**NOTE-11 - Major Bought-Out-Items are to be procured from LOA approved sources & the same shall be finalized during the finalization of Manufacturing Quality Plan . MQP shall be duly vetted by OEM with their project specific authorisation letter .**

**NOTE-12 : Main contractor apporved sub vendors are acceptable those are evaluated / assesesed as per Main contractor Quality Management System for vendor approval. Main contractor to inform the finaly selected vendor to NTPC as soon as PO is placed for these items. In case of sub-QR Note-1 is also applicable.**